

REMARKS

The Office Action dated April 19, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claim 13 has been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-29 are submitted for consideration.

Claim 13 was objected to under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 13 has been amended to overcome the objection. Therefore, Applicants request that the objection be withdrawn.

Claims 1-21, 23, 25, 17, and 29 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,868,282 to Carlsson (hereinafter Carlsson). The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1-21, 23, 25, 17 and 29.

Claim 1, upon which claims 2-5 and 22-23 depend, recites a method including connecting a subscriber terminal of a wireless telecommunication system to an infrastructure of the wireless telecommunication system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications

system. The method also includes connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method also includes requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal and generating signalling parameters for controlling the radio link. The method further includes communicating at least one of the signalling parameters between the sub-terminal and the infrastructure via the subscriber terminal.

Claim 6, upon which claims 7-10 and 24-25 depend, recites a terminal system including a subscriber terminal and at least one sub-terminal. The subscriber terminal includes a connecting unit configured to connect the subscriber terminal to a infrastructure of a wireless telecommunication system and subscriber an identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes a receiving unit configured to provide a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signalling parameters. The subscriber terminal includes a requesting unit connected to the connecting unit, for requesting the radio link. The terminal system includes a signaling unit connected to the connecting unit, for communicating at least one of the signalling parameters between the subscriber terminal and the infrastructure. The terminal system includes proximity a signalling unit

connected to the signalling unit, configured to communicate the at least one of the signalling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Claim 11, upon which claim 12 and 26-27 depend, recites a subscriber terminal of a wireless telecommunications system. The subscriber terminal includes a connecting unit configured to connect the subscriber terminal to an infrastructure of the wireless telecommunication system and a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system. The subscriber terminal also includes a requesting unit connected to the connecting unit, configured to request a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the subscriber terminal, the radio link being controlled on the basis of signalling parameters. The subscriber terminal further includes a proximity signalling unit configured to communicate at least one of the signalling parameters with the at least one sub-terminal over a proximity wireless interface and a signalling unit connected to the connecting means and the proximity signalling means, configured to communicate the at least one of the signalling parameters between the subscriber terminal and the infrastructure.

Claim 13, upon which claims 14-17 and 28 depend, recites a sub-terminal including a receiving unit configured to provide a radio link directed from an infrastructure of the wireless telecommunication system to a sub-terminal of the wireless telecommunication system. The sub-terminal is connected to the infrastructure and holds

a subscriber identity in the wireless telecommunication system. The sub-terminal uses the subscriber identity of the subscriber terminal. The radio link is controlled on the basis of signalling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal. The sub-terminal also includes a proximity signalling unit configured to communicate at least some of the signalling parameters between the subscriber terminal and the sub-terminal over a proximity wireless interface.

Claim 18, upon which claims 19-21 and 29 depend, recites a radio resource control system for controlling radio resources in a wireless telecommunications system. The radio resource control system includes access control unit configured to control access of at least one sub-terminal to an infrastructure of the wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system. The subscriber terminal is connected to the infrastructure and the subscriber terminal holds the subscriber identity in the wireless telecommunications system. The radio resource control system also includes a controlling unit connected to the access control means, configured to control a radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signalling parameters. The radio resource control system also a signaling unit configured to communicate at least one of the signalling parameters between the infrastructure and the subscriber terminal, the at least one of the signalling

parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

As outlined below, Applicants submit that Carlsson does not teach or suggest the elements of the presently pending claims.

Carlsson discloses a way in which subscriber identity information in a memory stored within a device, such as a mobile terminal, can be remotely used by a second independent device. In the case of a GSM terminal, for example, one terminal would be able to utilize the subscriber identity information contained in the SIM of another terminal by establishing a local communication link between the two terminals. The communication terminal, which is using the remote subscriber identity information from an independent device receives a command to use the remote subscriber identity information. This initial command can be entered by a user using the normal input/output (I/O) capabilities of the communication terminal, or it could be a command received over a communication link from the independent device which is going to supply the remote subscriber identity information. A local communication link is established between the two devices. Remote subscriber identity information is received over the local communication link and the communication terminal, which is using the remote subscriber identity information can register with the network using that information. See Col. 1, lines 41 to 61.

Figures 1A and 1B illustrate the overall method of Carlsson. At step 101, a user decides to use the remote SIM function. The user enters a command through the I/O

interface of the mobile station or other terminal at step 102. At step 108, the other mobile station or terminal, which is to supply the remote subscriber identity information, receives a command to supply the information. This command could be received from a user via the I/O of the supplying device. Alternatively, the supplying mobile station could receive some type of command from the using station, specifically requesting the use of the remote subscriber identity information. At step 110, a check is made to determine if the supplying mobile station is registered with the network. If so, it will be necessary for the supplying mobile station to de-register at step 112. This de-registration is necessary because the network prohibits two stations with the same subscriber identity from being registered on the network at the same time. Currently, wireless systems are set up with this prohibition to prevent unlawful or illegitimate use of subscriber accounts.

Applicants submit that Carlsson fails to teach or suggest each of the features recited in the pending claims. All of claims 1-21, 23, 25, 17, and 29, in part, recites that a radio link is requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal. Carlsson does not teach or suggest this feature. The Office Action alleged that this feature of the pending claims is anticipated by Col. 4, lines 18-21 and Col. 6, lines 13-15 and 22-25 of Carlsson. Col. 4, lines 18-21 of Carlsson discloses alternatively, the supplying mobile station could receive some type of command from the “using” station, specifically requesting the use of the remote subscriber identity information. Col. 4, lines 18-21 of Carlsson also discloses that for purposes of the rest of this disclosure, it will be assumed that the subscriber has

entered a command on the terminal that is to supply the remote subscriber identity information. This section of Carlsson merely describes a functionality where the supplying mobile station receives a command from the using station, such that the command requests the use of the remote subscriber identity information.

Col. 6, lines 13-15 and 22-25 of Carlsson discloses that if a mobile station A (the supplying mobile station) is already registered with the network, the CPU sends a request to the radio communication section to transmit a request to de-register from the network at step 2. The RF block within the radio communication section transmits the de-registration message at step 3 of Carlsson. At step 4 of Carlsson, the CPU within the processor system requests that the local communication interface set up a secure communication link with mobile station B (the “using” mobile station). In this example, mobile station A sends to mobile station B a "supply remote SIM mode started" message so that mobile station B can establish a remote SIM operation. Thus, this section of Carlsson merely describes a functionality where a CPU sends a request for de-registering the supplying mobile station from the network.

The Office Action alleged that requesting the use of remote subscriber identity as disclosed in Carlsson is equivalent to requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, as recited in the pending claims. The Office Action also alleged that “the request for remote subscriber identity causes the supplying terminal to de-register from the network, which requires a radio link to be directed between the infrastructure and the supplying

terminal.” While the request for remote subscriber identity causes the supplying terminal to de-register from the network, which requires a radio link to be directed between the infrastructure and the supplying terminal, there is no teaching or suggestion in Carlsson that the radio link requested is directed from the infrastructure to the at least one sub-terminal, as recited in the pending claims.

Carlsson is directed to transferring subscriber identity from one mobile station to another over a local communication link in order to reduce the need for transferring the SIM card physically between the two mobile stations. Otherwise, in Carlsson, the two mobile stations are independent. Carlsson also discloses the need for de-registration of the supplying device. This indicates that the supplying device of Carlsson is not capable of requesting a radio link for the using station, wherein the radio link is directed from the infrastructure to the using station, as recited in the presently pending claims. As is indicated in the cited passage of Carlsson, the de-registration is necessary because the network prohibits two stations with the same subscriber identity from being registered on the network at the same time.

Furthermore, all of claims 1-21, 23, 25, 17, and 29 recite that at least one of the signalling parameters is communicated between the sub-terminal and the infrastructure via the subscriber terminal. The Office Action cited Col. 5, lines 58-62 and Col. 6, lines 13-15 and 22-25 of Carlsson as teaching this feature. However, the cited section does not teach or suggest communicating signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal. Due to the de-registration of the supplying

device in Carlsson communicating signalling parameters between a “using” station and infrastructure via a “supplying” device is not possible. Carlsson implicitly indicates that once the subscriber identity information is transferred to the using station, the using station operates independently of the supplying device. Therefore, the supplying device, in Carlsson, is not capable of requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal. Therefore, Carlsson fails to disclose or suggest that a radio link is requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal and at least one of the signalling parameters is communicated between the sub-terminal and the infrastructure via the subscriber terminal, as recited in claims 1-21, 23, 25, 17 and 29.

With regards to the feature of generating signalling parameters for controlling the radio link between the subscriber terminal and the infrastructure, as recited in the pending claims, Col. 5, lines 58-62 of Carlsson (cited in the Office Action) does not teach or suggest this feature. Based on these differences between the presently pending claims and Carlsson, Applicants respectfully assert that the rejections under 35 U.S.C. 102(e) should be withdrawn because Carlsson fails to teach or suggest each feature of claims 1-21, 23, 25 17 and 29.

Claims 22, 24, 26 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Carlsson in view of U.S. Patent Publication No. 2004/0048678 to De Torbal (hereinafter De Torbal). According to the Office Action, Carlsson teaches all of

the elements of claims 22, 24, 26 and 28 except for generating a handover request in the subscriber terminal and performing simultaneous handovers of multiple subscribers. Therefore, the Office Action combined Carlsson and De Torbal to yield all of the elements of claims 22, 24, 26, and 28. The rejection is traversed as being based on references that fail to teach or suggest the combination of features recited in claims 1, 6, 11 and 13, upon which claims 22, 24, 26 and 28 depend.

De Torbal discloses that advance handover notice is given to a "target" base station of a group of mobile radio connections that will be soon be handed over to the target base station from a current, "serving" base station. This advance notice permits the target base station to reserve resources and prepare for the handovers of the mobile radio connections. In addition, the handover operation is initiated earlier than it would be otherwise. See at least the Abstract.

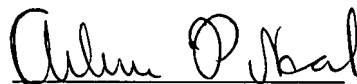
De Torbal does not cure any of the deficiencies of Carlsson, as outlined above. Specifically, De Torbal does not teach or suggest that a radio link is requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal and at least one of the signalling parameters is communicated between the sub-terminal and the infrastructure via the subscriber terminal, as recited in claims 1, 6, 11 and 13, upon which claims 22, 24, 26 and 28 depend. Therefore, Applicants respectfully assert that the rejections under 35 U.S.C. 103(a) should be withdrawn because neither Carlsson nor De Torbal teaches or suggests each feature of claims 1, 6, 11 and 13, and hence dependent claims 22, 24, 26 and 28 thereon.

Accordingly, Applicants respectfully submit that claims 1-29 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-29 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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